

AMENDMENTS TO CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

- 1 1. (Currently Amended) A database appliance, comprising:
2 a database server; [[and]]
3 a special purpose operating system having a set of components that include some, but
4 not all, components of a general purpose operating system, whose
5 configuration is dictated based on a said set of services required by the
6 database server[[],]; and
7 ~~wherein the set of components of the special purpose operating system are generated~~
8 ~~by removing one or more features of the general purpose operating system~~
9 ~~that are not required to provide said set of services to the database server, and~~
10 ~~wherein the special purpose operating system is the only operating system installed~~
11 ~~on and executed by the database appliance~~
12 a self-configuration module that is capable of performing the steps of:
13 detecting an environment in which the database appliance is being used; and
14 configuring the database appliance based upon the detected environment.
- 1 2. (Original) The database appliance of Claim 1, wherein the database server was
2 generated from another database server by modifying the code of the other database
3 server to optimize the code for execution on said database appliance.
- 1 3. (Original) The database appliance of Claim 1, wherein the hardware for said database
2 appliance is selected and configured to optimize performance of one or more services
3 to be performed by the database server.
- 1 4. (Original) The database appliance of Claim 1, wherein the hardware for said database
2 appliance is selected and configured to optimize a cache hit ratio experienced by the
3 database appliance.

- 1 5. (Original) The database appliance of Claim 1, wherein the database server is a
2 special purpose database server, wherein features and configuration of the special
3 purpose operating system are dictated by the special purpose database server and
4 supporting components, and wherein the special purpose database server is specially
5 adapted based upon the services required by a specific type of database usage.
- 1 6. (Original) The database appliance of Claim 1, wherein the special purpose operating
2 system performs process scheduling based on shares of CPU time.
- 1 7. (Cancelled).
- 2 8. (Original) The database appliance of Claim 1, wherein the special purpose operating
3 system employs a microkernel and an associated service module.
- 1 9. (Original) The database appliance of Claim 1, wherein the database server includes a
2 mechanism for reading resource information within an address space of a kernel of
3 the operating system without causing a context switch to the operating system kernel
4 address space.
- 1 10. (Original) The database appliance of Claim 5, wherein said type of database usage is
2 one of an online transaction processing application and an online analytical
3 processing application, wherein said database appliance is configured with an amount
4 of resources dedicated to I/O services that is based on whether said specific type of
5 database usage is an online transaction processing application or an online analytical
6 processing application, and wherein said database appliance is configured with an
7 amount of resources dedicated to computational services that is based upon whether
8 said specific type of database usage is an online transaction processing application or
9 an online analytical processing application.
- 1 11. (Original) The database appliance of Claim 5, wherein said specific type of database
2 usage is an online transaction processing application and said database appliance is
3 configured with relatively more resources dedicated to I/O services and relatively
4 fewer resources dedicated to computational services.

1 12-15. (Cancelled).

1 16. (Currently Amended) A method for constructing a database appliance, comprising:
2 installing, on a computer readable medium accessible to one or more processors, a
3 database server; [[and]]
4 generating a set of components of a special purpose operating system by removing
5 one or more features of a general purpose operating system that are not
6 required to provide a set of services required by the database server; and
7 installing, on the computer readable medium, [[a]] the special purpose operating
8 system;
9 wherein having a the set of components [[that]] include some, but not all, components
10 of [[a]] the general purpose operating system[[, whose]];
11 wherein configuration of the special purpose operating system is dictated based on
12 [[a]] the set of services required by the database server,
13 ~~wherein the set of components of the special purpose operating system are generated~~
14 ~~by removing one or more features of the general purpose operating system~~
15 ~~that are not required to provide said set of services to the database server, and~~
16 ~~wherein the special purpose operating system is the only operating system installed~~
17 ~~on and executed by the database appliance.~~

1 17. (Original) The method of Claim 16, wherein the database server was generated from
2 another database server by modifying the code of the other database server to
3 optimize the code for execution on said database appliance.

1 18. (Original) The method of Claim 16, wherein the hardware for said database
2 appliance is selected and configured to optimize performance of one or more services
3 to be performed by the database server.

1 19. (Original) The method of Claim 16, wherein the hardware for said database
2 appliance is selected and configured to optimize a cache hit ratio experienced by the
3 database appliance.

- 1 20. (Original) The method of Claim 16, wherein the database server is a special purpose
2 database server, wherein features and configuration of the special purpose operating
3 system are dictated by the special purpose database server and supporting
4 components, and wherein the special purpose database server is specially adapted
5 based upon the services required by a specific type of database usage.
- 1 21. (Original) The method of Claim 16, wherein the special purpose operating system
2 performs process scheduling based on shares of CPU time.
- 1 22. (Original) The method of Claim 16, wherein the method further comprises:
2 installing on the computer readable medium a self-configuration module that is
3 capable of performing the steps of:
4 detecting an environment in which the database appliance is being used; and
5 configuring the database appliance based upon the detected environment.
- 1 23. (Original) The method of Claim 16, wherein the special purpose operating system
2 employs a microkernel and an associated service module.
- 1 24. (Original) The method of Claim 16, wherein the database server includes a
2 mechanism for reading resource information within an address space of a kernel of
3 the operating system without causing a context switch to the operating system kernel
4 address space.
- 1 25. (Original) The method of Claim 20, wherein said type of database usage is one of an
2 online transaction processing application and an online analytical processing
3 application, wherein said database appliance is configured with an amount of
4 resources dedicated to I/O services that is based on whether said specific type of
5 database usage is an online transaction processing application or an online analytical
6 processing application, and wherein said database appliance is configured with an
7 amount of resources dedicated to computational services that is based upon whether
8 said specific type of database usage is an online transaction processing application or
9 an online analytical processing application.

1 26. (Original) The method of Claim 20, wherein said specific type of database usage is
2 an online transaction processing application and said database appliance is configured
3 with relatively more resources dedicated to I/O services and relatively fewer
4 resources dedicated to computational services.

1 27-30. (Cancelled).

1 31. (Previously Presented) The database appliance of Claim 1, wherein the step of
2 modifying the general purpose operating system includes adding one or more features
3 to the general purpose operating system, and wherein the one or more features are
4 used to provide said set of services to the database server.

1 32. (Cancelled).

1 33. (Previously Presented) The method of Claim 16, wherein the step of modifying the
2 general purpose operating system includes adding one or more features to the general
3 purpose operating system, and wherein the one or more features are used to provide
4 said set of services to the database server.

1 34. (Cancelled).